

## WHAT IS CLAIMED IS:

1. A liquid crystal display apparatus that comprises:

a liquid crystal display panel that displays a picture;

a plurality of light guide plates that are installed on a rear of the liquid crystal display panel and are spaced from each other; and

a back light assembly with a lamp assembly that emits light toward each light guide plate.

2. The liquid crystal display apparatus according to claim 1, wherein the back light assembly further comprises:

a spacing part installed between the light guide plates to install the light guide plates spaced from each other; and

a mold frame covering the lamp assembly installed on the opposite ends of the light guide plates.

3. The liquid crystal display apparatus according to claim 1, wherein the back light assembly further comprises a reflector provided on a rear of the lowest light guide plate installed below the other light guide plates and reflecting the light.

4. The liquid crystal display apparatus according to claim 2, wherein the back light assembly further comprises an auxiliary reflector plate installed between the spacing part and each light guide plate.

5. The liquid crystal display apparatus according to claim 4, wherein the spacing part comprises a blocking protrusion preventing the auxiliary reflector plate from moving toward the inside in a horizontal direction.

6. The liquid crystal display apparatus according to claim 1, wherein the back light assembly further comprises an optical diffuser provided on a surface of each light guide plate facing each other light guide plate.

7. The liquid crystal display apparatus according to claim 1, wherein the back light assembly further comprises an optical diffuser provided on a surface of the light guide plate facing the liquid crystal display panel or on a surface of the light guide plate opposite to the surface facing the liquid crystal display panel.

8. The liquid crystal display apparatus according to claim 6, wherein the optical diffuser is a convexo-concave pattern formed on the surface of the light guide plate.

9. The liquid crystal display apparatus according to claim 7, wherein the optical diffuser is a convexo-concave pattern formed on the surface of the light guide plate.

10. The liquid crystal display apparatus according to claim 1, wherein the lamp assembly comprises:

a lamp; and

a lamp reflector preventing the light of the lamp from radiating to a direction opposite to the light guide plate.

11. The liquid crystal display apparatus according to claim 10, further comprising a front frame installed between the liquid crystal display panel and the highest light guide plate positioned on the top of the other light guide plates.

12. The liquid crystal display apparatus according to claim 1, comprising:

a PCB operating the liquid crystal display panel; and  
a FPC connecting the liquid crystal display panel and the PCB, and folded at an edge of the back light assembly to install the PCB on one side of the circumference of the back light assembly.

13. A manufacturing method of a liquid crystal display apparatus that comprises:

providing a mold frame that is partitioned by a spacing part and is formed with a front accommodation space and a rear accommodation space;

accommodating a second light guide plate into the rear accommodation space of the mold frame;

installing a reflector on a rear of the second light guide plate;

accommodating a first light guide plate into the front accommodation space of the mold frame; and

inserting lamp assemblies into either of the opposite spaces which are formed between the mold frame and the

first light guide plate and the second light guide plate.

14. The manufacturing method of the liquid crystal display apparatus according to claim 13, further comprising:

placing an optical sheet layer on the front of the first light guide plate; and

installing a front frame to closely contact the front edges of the first light guide plate and the optical sheet layer.

15. The manufacturing method of the liquid crystal display apparatus according to claim 14, further comprising covering the rear accommodation of the mold frame.

16. The manufacturing method of the liquid crystal display apparatus according to claim 13, wherein the lamp assembly is inserted slidably into the space formed between the mold frame and the circumference of the first light guide plate and the second light guide plate.

17. The manufacturing method of the liquid crystal display apparatus according to claim 14, wherein the lamp assembly is inserted slidably into the space formed between the mold frame and the circumference of the first light guide plate and the second light guide plate.

18. The manufacturing method of the liquid crystal display apparatus according to claim 15, wherein the lamp assembly is inserted slidably into the space formed

between the mold frame and the circumference of the first light guide plate and the second light guide plate.

19. A back light assembly that is installed on a rear of a liquid crystal display panel of a liquid crystal display apparatus, comprising:

a plurality of light guide plates that are installed on the rear of the liquid crystal display panel and are spaced from each other; and

a lamp assembly that emits light toward each light guide plate.